

DIVERSITY OF TABANID FAUNA IN TWO MARYLAND  
COUNTIES (DIPTERA: TABANIDAE)<sup>1</sup>

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*Abstract.*—The relative abundance of common tabanid species are reported and discussed for Prince George's and St. Mary's counties, Maryland.

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Uebel and Bickley (1976) reported on weekly collections of tabanids at three sites in Prince George's County, Maryland in 1973, and Lawrence et al. (1976) reported on weekly or twice-weekly collections at three sites in St. Mary's County in 1975. The same traps were used, but the number of collections, particularly overhead net collections, differed. Nevertheless the two studies are comparable in many ways, and a subjective estimate of the relative abundance of the various species of flies contributes to an understanding of the nature of the fly problem affecting man and animals. In both studies it was noted that just a few miles can make a vast difference in the fauna, both qualitatively and quantitatively.

Uebel and Bickley (1976) recorded 13 species or subspecies from Prince George's County but which are presently not known to occur in St. Mary's County. Lawrence et al. (1976) recorded 7 species and subspecies from St. Mary's County but which are not known to occur in Prince George's County.

In Prince George's County the most productive site was the Hayden Farm, part of the Beltsville Agricultural Research Center. This area is between 3 and 4 mi from the Patuxent River, and here there are no brackish marshes. Two other Prince George's sites are contiguous with the Patuxent River about 25 mi south. Marsh areas here are tidal but only very slightly brackish.

In St. Mary's County one collecting site is on a farm with a freshwater pond and some swampy areas. The two other sites are near fresh water swamps and brackish marshes. These areas are approximately 40 mi south of the southernmost Prince George's County location.

Table 1 shows that there were five species considered abundant in both counties. Six other species considered abundant in Prince George's County were also taken in St. Mary's County. Of the other six abundant St. Mary's County species, three were also taken in Prince George's County. One species, *Tabanus nigrovittatus* Macquart was collected in 1972 at Magruder's Landing, Prince George's County (Bickley and Seek, 1975). However, two species, *Chrysops brunneus* Hine and *C. hinei* Daecke are not known to occur in Prince George's County. The data presented in Table 1 suggest that *Tabanus quinquevittatus* Wiedemann is very well adapted to several different environments, and the same holds true for *Chrysops vittatus*

Table 1. Relative abundance of common tabanid species reported in two Maryland counties; ranking from 1-11 with the most abundant species as 1.

	Prince George's County 1973	St. Mary's County 1975
<i>Chrysops</i>		
<i>brunneus</i> Hine		6
<i>dacne</i> Philip	9	
<i>flavidus</i> Wiedemann		5
<i>hinei</i> Daecke		8
<i>macquarti</i> Philip		7
<i>montanus</i> Osten Sacken	11	
<i>obsoletus obsoletus</i> Wiedemann	4	
<i>univittatus</i> Macquart		10
<i>vittatus</i> Wiedemann	5	3
<i>Hybomitra</i>		
<i>lasiophthalma</i> (Macquart)	1	11
<i>Tabanus</i>		
<i>lineola</i> F.	3	9
<i>nigripes</i> Wiedemann	8	
<i>nigrovittatus</i> Macquart		2
<i>pumilis</i> Macquart	7	
<i>quinquevittatus</i> Wiedemann	2	1
<i>subsimilis subsimilis</i> Bellardi	6	
<i>sulcifrons</i> Macquart	10	4

Wiedemann. On the other hand, species such as *C. brunneus* and *C. hinei* seem to have more precise ecological requirements that limit their distribution. An understanding of larval habitats and activities is prerequisite to the management of these important pests. The acquisition of needed information presents a formidable challenge.

#### Literature Cited

- Bickley, W. E., and T. R. Seek. 1975. Insects in four Maryland marshes. Univ. of Md. Agric. Exp. Sta. Misc. Publ. 870:1-27.
- Lawrence, R. S., W. E. Bickley, and J. Mallack. 1976. The seasonal distribution of biting flies in St. Mary's County, Maryland in 1975 (Diptera: Tabanidae, Muscidae). Univ. of Md. Agric. Exp. Sta. Misc. Publ. 904:1-18.
- Uebel, E. C., and W. E. Bickley. 1976. Tabanidae (Diptera) at selected sites in Maryland. Proc. Entomol. Soc. Wash. 78(2):176-180.

#### Footnote

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